

REMARKS

Rejection of claim 11 under § 102(e) over U.S. Patent No. 6, 160, 545 to Eyer, et al. (hereinafter, “Eyer”) is maintained. By this amendment claim 11 is amended without adding any new subject matter. The system of claim 11 includes a packetization device coupled to the video controller to independently packetize at least two heterogeneous video streams for transmission thereof to a display device without converting the formats and frame rates of the two heterogeneous video streams to a common output format and rate. Support for this limitation can be found in the Applicants’ Specification on page 4, lines 11-12, page 8, lines 6-16, page 14, lines 11-17, and page 15, lines 14-20

Claim 11 calls for a display system architecture for the transport of disparate graphics and video sources from a computing device to a display device. In this display system architecture, the mixing of the disparate sources occur within the display device instead of within the computing device as taught by the Eyer reference. That is, the content is not reduced to a single common format prior to transport to the display. Each of the disparate video streams formed of different video sources make up the heterogeneous video which is conveyed from the computing device to the display device independently. Instead of aggregating and synchronizing all the video sources in the computing device and thereby forcing all streams into a single, least-common-denominator format and timing, video sources may be independently streamed to the display and presented in their native format. In other words, superior performance to systems where heterogeneous video signals are mixed in the computing device prior to modulation for the display is provided because the content is not mixed in the computing device.

However, the Eyer reference simply discloses a device that does not independently packetize multiple heterogeneous video streams for transmission thereof in respective native information formats and associated native frame rates. In fact, the video and IPG data is mixed in MPEG-2 encoder prior to modulation. In this manner, the different sources are mixed within the computing device before sending the data to the display device. Therefore, the display-side mixing of disparate sources do not occur in the Eyer reference at all. Instead, mixing of this disparate content within the computing device and encoding it to a single common video output signal for interfacing to the display is provided in the Eyer reference. However, this output represents an awkward compromise between different ideal representations for each of the sources and limitations imposed by the actual display device.

Moreover, this type of mixing also requires that all formats be converted into a common output format. While this output format may be ideal for the one kind of video, it may be an over-representation of another kind of video that only requires, for example, less bits per pixel. Because the transmission happens at a native frame rate, a frame conversion process will not be required which inevitably degrades the source from its native format. However, as claimed in claim 11, a way is defined for transmitting disparate video streams from a computing device to a display device independently.

In the Office Action, it is suggested that the Eyer reference shows that the video/audio data is from a video/audio source while the ITG data is from the ITG data server, i.e., two video data are from different sources. The Examiner contends that the Eyer reference shows in Figure 2 the encoder 100 that independently packetizes video/audio and ITG data streams. The ITG provides a continuous flow of ITG data at typically 20-200 kps to a plurality of encoders. From this, the Examiner concludes that the ITG data is packetized and depacketized at the same rate 20-200 kps. However, no native frame rate is indicated in the Eyer reference for the video/audio source. Neither is there any indication as to use of a native format for the video/audio source and the ITG data source. However, the Examiner simply suggests that the video data for transmission is in respective native information format and transmitted at associated native frame rate. Absent a specific teaching or a hint of transmission of at least two heterogeneous video streams in respective native information format and associated native frame rates, the Eyer reference fails to teach all the limitations in claim 11.

The Examiner cites two references namely, U.S. Patent No. 6,188,436 to Williams, et al. (hereinafter, "Williams") and U.S. Patent No. 6,108,039 to Linzer, et al. (hereinafter, "Linzer") showing a typical encoder comprising a processor, a memory coupled to the processor and a video controller coupled to the processor. However, none of the specific limitations of claim 11 are even remotely taught or suggested by either of the two cited references. In this manner, claim 11 is not anticipated by the teachings of the Eyer reference or the William and Linzer references. For at least the similar reasons as provided with regard to claim 11, the claims 12 and 13 also distinguish over the cited art. Therefore, reconsideration of the rejection of claims 11, 12, 13 is respectfully requested.

In view of these remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,

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